CHAPTER VII

MANAGEMENT THRESHOLDS

As described in the existing condition section of this Watershed Analysis update, desired conditions have not been achieved in many of the resource areas under each Dimension. In order to facilitate movement of the landscape toward the desired conditions, a list of Management Opportunities was developed and prioritized in Chapter V. It is neither appropriate nor desired to accomplish all of these opportunities at one time on the landscape as each has potential direct, indirect, and cumulative effects on the physical, biological, and human dimensions within the area. Therefore, the team of resource specialists compiling this watershed analysis update reviewed the list of proposed Management Opportunities to identify resource areas where full implementation of the Management Opportunities within the next 10-15 years may exceed resource thresholds.

Thresholds are defined as management direction contained in the Forest Plan, as amended, Endangered Species Act direction, or other existing decisions from other plans or policies. Thresholds are also those existing conditions on the ground as a result of past and present management actions on public and private ground that can limit future management actions. The following threshold assessment is based on the consideration of past and present management actions and whether the potential exists to exceed existing thresholds with full implementation of the Management Opportunities within the next 10-15 years. The intent of these thresholds are to help guide future management in the Meadow Creek Watershed related to timing, scale, and level of permissible disturbance/activity.

THE PHYSICAL DIMENSION

1. AQUATICS: Since the early 1990's there has been an increased emphasis on restoration of the Meadow Creek watershed, both on public and private lands. The intent of the Management Opportunities are to facilitate moving the watershed towards its desired conditions. Full implementation of the Management Opportunities should lead towards improvements in baseline conditions (temperature, sediment, instream habitat, upland conditions). Timing and location of project implementation would be critical to ensure thresholds are not exceeded. There are no known management thresholds beyond those listed in the Forest Plan and Biological Opinions. Analysis of how site-specific projects would improve baseline conditions would be disclosed in environmental documents, with mitigation as warranted.

2. ROADS: The Management Opportunities are restorative in nature that will lead to achieving desired road management objectives. Implementation of management opportunities within the next 10-15 years would improve conditions for aquatics, soils, big game cover. There are no known management thresholds beyond those listed in the Forest Plan and Biological Opinions. Analysis of how site-specific projects would improve baseline conditions would be disclosed in environmental documents, with mitigation as warranted.

3. SOILS: Many of the Management Opportunities are restorative in nature and would benefit soils resources if implemented within management direction. Those Management Opportunties that have the potential to have site-specific effects that could exceed thresholds would be analyzed and disclosed in an environmental document with mitigations where warranted. There are no know management thresholds beyond those listed in the Forest Plan.

THE HUMAN DIMENSION

1. ROADS – Human Dimension Factors, as addressed in Chapter 4, Current Trends and Desired Conditions, there are many elements to consider relative to the human dimension. Accessibility, safety, dispersed recreation, motorized recreation, and economics are key elements that factor into maintaining a safe and efficient transportation system. Experience has shown that whether building a road or closing/obliterating a road benefits some forest users and displaces others. The primary drivers in managing a safe and efficient transportation system are other resource objectives, such as aquatics and big game management. Undeniably, the Management Opportunities listed (road obliteration, OHV Management Plan, and Access and Travel Management Plan) will reduce motorized opportunities within the watershed. These opportunities would lead to improvements from baseline conditions for many resources. Thus, there are no known management thresholds beyond those listed in the Forest Plan and Biological Opinions. Analysis of how site-specific projects would improve baseline conditions would be disclosed in environmental documents, with mitigation as warranted.

THE BIOLOGICAL DIMENSION

1. OLD-GROWTH/STRUCTURAL DIVERSITY

Old-Growth

Refer to direction from Wallowa-Whitman National Forest Plan as amended and Endangered Species Act direction for this resource.
Data Gap: Number of Structural acres.

Old Growth and Connective Corridors

Late and old structural stages fall below the HRV identified for the Meadow Creek Watershed for both the multistratum with large trees and single stratum with large tree structural stages.

The Forest Plan states that connectivity between old growth stands will be maintained and enhanced by at least 2 different directions. Connective corridors are comprised of trees $\geq$9" dbh and canopy closure of >50% (or within the top 1/3 percent of site potential). Stand widths should be at least 400 ft. wide. In the Meadow Creek Watershed late and old structural stages occur in patches generally less than 50 acres and are not well connected and generally not functioning as habitat for old growth dependant species. Many of these patches are isolated by more than a mile. The most abundant structural stage available to provide some level of connectivity between late and old structure patches is understory reinitiation. Due to the minor amounts of old growth and the small patch sizes, it is not practical to attempt to develop a connected network of old growth around existing old growth. A long-term approach to developing late and old structure is to identify larger (400-600 acre) patches of habitat and connective corridors with the highest potential to develop over the long term and managed to provide old growth habitat values in the future.

The Old Growth and Connective Corridor issue guides implementation of the management opportunities (particularly vegetative treatments) by emphasizing silvicultural prescriptions e.g.

thinning from below to the Upper Mgt Zone. The likely results will facilitate attainment of Late and Old Structural characteristics by maintaining large structure, increasing diameter growth and reducing the chances of loss of large trees to insects, diseases or fire. Implementation of Silvicultural prescriptions (Harvest Regeneration cutting e.g. clearcuts, seed trees or Shelterwoods) would not maintain structure or cover at desired levels. Thinning from below would maintain structure, however (depending upon the plant association) would likely reduce cover in the short term below recommendations for connective corridors.

A balance between short and long-term goals includes retaining existing old growth and connective corridors in the short term and manage for this structure, considering patch size and distribution in the long term.

Upland Vegetation and Structural Diversity

The emphasis areas for Silvicultural needs for the Meadow Creek Watershed are:

1. Thinning from below (low thinning) in overstocked stands to reduce stand susceptibility to insects, diseases, parasites and other harmful agents and to promote stand growth and vigor;
2. Thinning from below to increase growth to facilitate development of late and old structural (LOS) characteristics in a landscape that is far below the historic range of variability for LOS.
3. Sanitation/Salvage to remove insect or diseased damaged trees in high damage incidence stands that are at or below recommended stocking levels.
4. Precommercial (non commercial) thinning of stands in the stem exclusion closed canopy structural stage to promote stand growth and vigor, and to reduce future stand susceptibility to insect, disease and parasite caused damage.
5. Ensure that all disturbed areas are adequately stocked and that plantations are monitored and protected from damage.

In general, thresholds for accomplishing these activities would be related to direction from Wallowa-Whitman National Forest Plan as amended, Biological Opinions, and Endangered Species Act direction. In addition, short term and long-term cover would be a threshold for the thinning called for in 1, 2, and 4 above. Refer to the following section for mechanical thinning thresholds.

2. WILDLIFE HABITAT EFFECTIVENESS

This threshold assessment addresses guidelines to reduce disturbance to wildlife and provide wildlife habitat within the Meadow Creek Watershed. Disturbance factors include:

- Distance of habitat from motorized access
- Motor vehicle access - Forest Plan direction
- Timing
- Location of project activities.

Cover

Distribution of cover is addressed by applying the standard at the planning area scale (LRMP). The intent of managing for 30% cover is to ensure an adequate amount of cover at any point in time (LRMP). Cumulatively the watershed is above the 30% objective in the forest plan. 6 subwatersheds exceed that objective. Many of the Management Opportunities are restorative in nature and would benefit cover, such as limiting motorized vehicle access and stand structure development from vegetative treatments. Vegetative treatment has the greatest potential to reduce existing marginal and satisfactory cover in the short term. The timing and location of these management Opportunities will guide project level planning to ensure that cover objectives at the subwatershed scale will be met. Private landowners typically do not manage for wildlife cover and generally, restoration activities on

private lands promote tree farming objectives and reduced fire risks. Private lands can't be depended on for wildlife cover.

Down Wood

Based on local studies with the PNW Research Lab (Bull et al. 1995, 1999) Forest Plan down wood standards are inadequate to meet wildlife habitat needs. The ICBEMP Draft EIS, Alternative 4 (preferred) recommends higher log densities than those required in the Forest Plan. Standard HA-S8 (Chapter 3, page 152) states that in the absence of "locally developed standards", the following shall be provided:

- Dry Forest, ponderosa pine, 6 logs/acre >10 in. average diameter, +25% of these >20 in. average diameter;
- Moist Forest, mixed conifer, 33 logs/acre >15 in. average diameter with an average length of 35 ft. Of these, 40% should be >20 in.;
- Cold Forest, lodgepole pine, 20 logs/acre >10 in. average diameter with an average length of 30 ft. Largest logs available should be left.

Vegetative treatments implemented would meet the above recommendations, thus thresholds for down wood would not be exceeded.

3. RIPARIAN CONDITION

Management opportunities are restorative in nature or focused on acceleration of recovery of riparian vegetation. Treatment of riparian area vegetation should not exceed 10% of the total acres in a subwatershed in any single year.

If vegetation treatments are limited to the 10% threshold per year no measurable impacts would occur to stream temperature, reduction of large wood debris levels or sediment delivery to stream channels. The 10% threshold would allow acceleration of riparian vegetation characteristics which would lead to meeting the desired condition for aquatics in the Meadow Creek Watershed.

4. FIRE/FUELS

Use prescribed fire to work towards the historical range of variability levels for the analysis area. Management of grasslands using prescribed fire can create some deficiencies for big game and domestic livestock if it is not scheduled throughout the decade. One of the objectives in burning grasslands is to enhance forage production while achieving a mosaic pattern of vegetation within any subwatershed and within the Meadow Creek watershed. Prescribed fire is a management tool that can facilitate the distribution of big game, reintroduce fire frequency to the ecosystem and minimize impacts on domestic livestock operations. To ensure that prescribed fire is meeting big game and domestic livestock objectives no more than 10% of the available forage per year should be burned.

OTHER RESOURCES:

1. ROADS – Biological Dimension – reference the Aquatic and Wildlife Habitat Effectiveness above. There are no know management thresholds beyond those listed in the Forest Plan.
2. THREATENED, ENDANGERED, SENSITIVE SPECIES – Although the management opportunities are restorative in nature, the potential exists, based on the timing and location of projects, to retard recovery of TE&S species. Section 7 consultation under the ESA with NMFS

and USFWS will ensure that any management thresholds associated with those species won't be exceeded and would facilitate the recovery of the species and/or their habitat.

3. NOXIOUS WEEDS – Management opps are preventative and restorative in nature. As an example, implementing an Access and Travel Management Plan would further limit motorized access within the watershed, providing preventative measures. The primary goal stated in The Weed Prevention Best Management Practices (draft 1999) includes stopping the spread of existing weeds and preventing the establishment of new weeds. Prevention and Control Measures are identified in the National Policy: FSM 2080. Analysis of how site-specific projects would improve baseline conditions would be disclosed in environmental documents, with mitigation as warranted.
4. RANGE – Management opportunities are restorative in nature. In conjunction with ongoing operations of the Allotment Management Plan, management opportunities such as prescribed fire, water developments, and fencing will move the grasslands towards desired conditions. As noted under Fire/Fuels above, the timing and location of prescribed fire needs to consider potential impacts on annual forage production and utilization for any given pasture. Thus the management threshold of no more than 10% of the available forage per year should be burned. There are no other management thresholds beyond those listed in the Forest plan.
5. INSECT AND DISEASE - A primary objective of the vegetation treatment opportunities is to manage forest stands to maintain or improve resilisency from instect, disease, wildfire, or windthrow events. Vegetation treatments are designed to improve structural composition of the stands, facilitating late-old structure, which is generally resilent to natural disturbance factors. Excessive treatment, particularly if it is poorly implemented can lead to an increased risk of insect and disease. So long as Forest Plan management direction is followed and potential risk are assessed in the environmental document then implementation of the management opportunites should not exceed management thresholds.